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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,271	07/30/2001	Chen-Ho Lee	112.P14007	8683

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EXAMINER	
QUIETT, CARRAMAH J	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/916,271	LEE, CHEN-HO	
	Examiner	Art Unit	
	Carramah J. Quiett	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/08/2005 have been fully considered but they are not persuasive.

For claim 1, Applicant asserts that Watanabe does not relate to staggered sensors. The Examiner respectfully disagrees. In col. 8, lines 27-42, Watanabe teaches that, "...a video signal on each pixel is read at a time in a zigzag manner from two rows of pixel groups 301a and 301b connected to one vertical drive line 2 (see read group (1) in fig. 8). Similarly, when a drive signal is applied to the next vertical drive line 2, a video signal on each pixel is read in a zigzag manner from two rows of pixel groups 301a' and 301b' connected to this vertical drive line 2 (see read group (2) in fig. 8)." As illustrated in figs. 7 and 8, the pixels are positioned in a zigzag manner. Please note that the word "zigzag" is a synonym for the word "stagger". Accordingly, claims 1-11 are rejected using the same prior art as discussed in the previous Office Action.

Claim Objections

2. Claim 1 is objected to because of the following informalities: The second limitation of claim one is written as, "reading out said pixel signals from said consecutive photocells of one said linear image sensor, without inserting said pixel signals ***form*** said other linear image sensor." This limitation should be written as, "reading out said pixel signals from said consecutive photocells of one said linear image sensor, without inserting said pixel signals ***from*** said other linear image sensor." Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 1, 3-4, 6-7, and 9** and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe (U.S. Pat. #6,522,356).

As for **claim 1**, Watanabe teaches a method of reading pixel signals from a staggered sensor, in figures 9-11, said method comprising:

providing said staggered sensor which comprises at least two linear image sensors, wherein a plurality of photocells of one said linear image sensor are offset abutting with a plurality of photocells of said adjacent linear image sensor respectively (fig. 9; col.8, line 45 - col. 9, line 21); and

reading out said pixel signals from said consecutive photocells of one said linear image sensor, without inserting said pixel signals form said other linear image sensor (fig. 11, col. 10, lines 10-63).

Regarding **claim 3**, Watanabe teaches the method of claim 1, wherein said photocells comprise a plurality of sensors of complementary metal oxide semiconductor. In col. 8, lines 45-51, Watanabe states that an X-Y scan reading type imaging apparatus is illustrated in fig. 9 with a plurality of pixels. X-Y scan reading type imaging apparatus inherently has a plurality of complementary metal oxide semiconductor (CMOS) sensors.

For **claim 4**, Watanabe further teaches the method of claim 1, wherein said reading out step is coordinated with at least a series of clock pulses (figs. 9-1 1; col. 9, line 22 - col. 10, line 63).

As for **claim 6**, Watanabe teaches a method of video output applicable on a multiple staggered sensor in a scanner, in figures 9-1 1, said method comprising:

providing at least two sensor rows in' said multiple staggered sensor, each said sensor row consisting of a plurality of photocells (fig. 9; col.8, line 45 - col. 9, line 21);

reading a scan line with a plurality of pixels by one of said sensor row to generate a first consecutive video signals (fig. 11, col. 10, lines 10-63);

offsetting reading said scan line with said pixels by the other of said sensor row to generate a second consecutive video signals (fig. 11, col. 10, lines 10-63); and

outputting said video output consisting of at least said first consecutive video signals(fig. 11, col. 10, lines 10-63).

As for **claim 7**, Watanabe further teaches the method of claim 6, wherein said photocells of one said sensor row are offset abutting with said photocells of the other adjacent sensor row respectively (fig. 3A; fig. 9; col. 6, lines 50-61,. co1.8, lines 45-64).

Regarding **claim 9**, Watanabe further teaches the method of claim 6, wherein said photocells comprise a plurality of sensors of complementary metal oxide semiconductor. In col. 8, lines 45-51, Watanabe states that an X-Y scan reading type imaging apparatus is illustrated in fig. 9 with a plurality of pixels. X-Y scan reading type imaging apparatus inherently has a plurality of complementary metal oxide semiconductor (CMOS) sensors.

Lastly for **claim 10**, Watanabe teaches the method of claim 6 wherein said video output further comprises said second consecutive video signals (fig. 11, col. 10, lines 10-63).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. **Claims 2, 5, 8, and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Pat. #6,522,356) in view of Inuiya (U.S. Pat. #5,982,984).

As for **claim 2**, Watanabe fails to teach a method wherein said photocells comprise a plurality of charge-coupled devices (CCDs). However, he discusses a basic filter management of a CCD in the background of his disclosure (col. 1, line 36 - col. 2, line 30).

Inuiya discloses photocells comprising a plurality of charge-coupled devices (CCDs). In figure 1, Inuiya illustrates three CCDS (refs. 14R, 14G, 14B). Then, in figure 19, he illustrates the readout of the CCDS. In col. 20, lines 29-62, Inuiya discloses two horizontal transfers, which allows pixel signals to be read out from the consecutive photodiodes of the sensors, without inserting the pixel signals from the other sensor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement Watanabe's invention with the CCDS of Inuiya in order to improve the quality of the recorded image (Inuiya, col. 1, line 20 - col. 2, line 8).

For **claim 5**, Watanabe does not teach the method of claim 1, wherein said reading out step is followed by outputting said pixel signals from said consecutive photocells of one said linear image sensor into an analog/digital converter. Inuiya, on the other hand, illustrates an analog/digital converter (ref. 16) in figure 1 via the CDS circuits (ref. 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement

Watanabe's invention with the A/D converter of Inuiya in order to improve the quality of the recorded image (Inuiya, col. 1, line 20 - col. 2, line 8).

For **claim 8**, the claim is very similar to the limitation in claim 2. Therefore, claim 8 is analyzed and rejected as discussed in claim 2.

For **claim 11**, the claim is very similar to the limitation in claim 5. Therefore, claim 11 is analyzed and rejected as discussed in claim 5.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carramah J. Quiett whose telephone number is (571) 272-7316. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CJQ
January 9, 2006

NGOC-YEN VU
PRIMARY EXAMINER